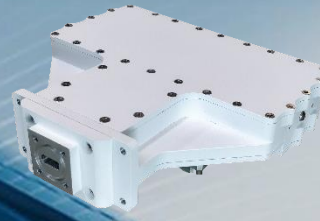


# Ka-BAND LOW NOISE BLOCK (LNB)

ACLNBW-Ka-E45-V3

Ultra-Wideband Series Simultaneous Outputs



Ed.03

06/02/18



**ACLNBW-Ka Ultra-Wideband Series has been designed to meet restrictive specifications for Ka Band communication systems. The equipment has a typical gain of 60 dB with a noise figure lower than 1.8 dB, with low weight and dimensions. Single input and simultaneous output ports are provided so no channel selection is needed.**

**ACLNBW-Ka Ultra-Wideband Series has been tested over the specified temperature range, providing good gain stability with temperature and very high reliability.**

## RECEIVER SPECIFICATIONS

|                                                      |                                            |
|------------------------------------------------------|--------------------------------------------|
| Input frequency .....                                | 17.7 to 22.2 GHz                           |
| Input Ka-band VSWR (50 Ω) .....                      | < 1.5:1                                    |
| Output frequency.....                                | 1000 to 2150 MHz                           |
| Output L-band VSWR (50 Ω).....                       | < 2.0:1                                    |
| Spectrum inversion .....                             | None                                       |
| Maximum input level without damage.....              | 0 dBm                                      |
| Gain .....                                           | > 60 dB                                    |
| Gain flatness over the whole channel bandwidth ..... | ± 2.0 dB                                   |
| Gain flatness over any 40 MHz.....                   | ± 0.5 dB                                   |
| Gain stability over 24 hours .....                   | ± 0.25 dB @ constant temperature           |
| Gain variation over temperature.....                 | ± 1.5 dB over the whole range              |
| Noise figure @ 25°C .....                            | ≤ 1.8 dB (1.6 dB typ)                      |
| Image rejection.....                                 | > 40 dB                                    |
| Output P1dB .....                                    | > +10 dBm                                  |
| In-Band Spurious.....                                | < -60 dBc @ Pout = 0 dBm                   |
| Output phase noise (IESS-308/309 – 5 dB)             |                                            |
| 100 Hz .....                                         | -65 dBc/Hz                                 |
| 1 kHz.....                                           | -75 dBc/Hz                                 |
| 10 kHz .....                                         | -85 dBc/Hz                                 |
| 100 kHz.....                                         | -95 dBc/Hz                                 |
| External reference .....                             | 10 MHz / 0 dBm ± 5 dB                      |
| DC input voltage .....                               | 12-24 V <sub>DC</sub>                      |
| DC current consumption @ 24 V <sub>DC</sub> .....    | 500 mA typ (125 mA typ each channel)       |
| Storage temperature .....                            | -40 to +85°C                               |
| Operating temperature.....                           | -20 to +60°C                               |
| Relative humidity .....                              | up to 100%                                 |
| Operating altitude.....                              | up to 4500 m                               |
| Interfaces                                           |                                            |
| RX input (Ka-Band) .....                             | WR42 grooved (PBR 220)                     |
| RX outputs (L-Band+DC+Ext. Ref. @ each port) .....   | Type N(F) 50 Ω                             |
| Dimensions .....                                     | 140 x 155 x 40 mm / 5.5 x 6.1 x 1.6 inches |
| Weight .....                                         | 950 g / 2.1 lbs                            |
| Finish .....                                         | RAL 9003 (White)                           |

| Ka-band input      | L-band output    | LO frequency | Output port | Standard frequency option |
|--------------------|------------------|--------------|-------------|---------------------------|
| 17.70 to 18.85 GHz | 1000 to 2150 MHz | 16.700 GHz   | 1           | ACLNBW-Ka-E45-V3          |
| 18.85 to 20.00 GHz | 1000 to 2150 MHz | 17.850 GHz   | 2           |                           |
| 20.00 to 21.15 GHz | 1000 to 2150 MHz | 19.000 GHz   | 3           |                           |
| 21.15 to 22.20 GHz | 1000 to 2050 MHz | 20.150 GHz   | 4           |                           |

|            |                                                              |
|------------|--------------------------------------------------------------|
| LN1: ..... | RX output connector type SMA(F) 50 Ω                         |
| LN2: ..... | Operating temperature -40 to +60°C                           |
| LN3: ..... | Internal reference (ACLNBW-Ka-E45-V3 freq. stability ±1 ppm) |
| LN4: ..... | Supply & external reference using only single port           |

Any other frequency band or custom specification available under request. Please, contact factory. Specifications are subject to change without notice.